Test Your Knowledge!

Deoxygenated blood returns to the heart through the superior and inferior vena cava, which empty into the _____.

    a. Left Ventricle
    b. Right Atrium
    c. Right Ventricle
    d. Left Atrium

B – Right Atrium

Deoxygenated blood returns to the heart via the Superior and Inferior Vena Cava, which dumps into the Right Atrium. This deoxygenated blood is then forced down through the Tricuspid Valve into the Right Ventricle, up through the Pulmonary Valve through the Pulmonary Arteries, and then to the Lungs for oxygenation. The newly oxygenated blood then travels back to the heart via the Pulmonary veins into the Left Atrium. The oxygenated blood is forced down through the Mitral Valve into the Left Ventricle, up through the Aortic Valve, and out through the Aorta.

_____ is the primary pacemaker of the heart producing Sinus Rhythm.

    a. AV Node
    b. Bundle of His
    c. SA Node
    d. Bundle Branches

C – SA Node

The SA Node (Sinoatrial Node) is the primary pacemaker of the heart producing Sinus Rhythm. The AV Node, Bundle of His, and Bundle Branches may act as redundant pacemakers if the SA Node is unable to pace the heart.

_____ is responsible for rapid and even ventricular depolarization.

    a. Bundle Branches
    b. AV Node
    c. SA Node
    d. Bundle of His

A – Bundle Branches

The right and left bundle branches allow the electrical impulse to spread throughout both ventricles evenly allowing for rapid and simultaneous ventricular contraction.

The ____ wave represents atrial depolarization, whereas the ____ wave represents ventricular depolarization.

    a. P wave, T wave
    b. T wave, P wave
    c. QRS wave, T wave
    d. P wave, QRS wave

D – P wave, QRS wave

The P wave represents atrial depolarization and causes atrial contraction. The QRS represents ventricular depolarization and causes ventricular contraction.

Calculate the heart rate of the above strip using the 300 method.
   a. 75 bpm
   b. 60 bpm
   c. 100 bpm
   d. 120 bpm

A – 75 bpm

To calculate the heart rate divide 300 by the number of large boxes between the QRS waves. There are approximately 4 large boxes between each QRS. 300/4 = 75 bpm.